Appendix D4 – Scientist Alternative – Don Waller

Scientists' Alternative

Don Waller, FS Diversity Options Workshop

- · 2002 Rule what's right
- Concerns
 - NEPA level of analysis and EIS
 - discretionary authority and standards
 - How should science be integrated?
- · Scientists' Option #3
 - Follows Option 2 in general direction
 - Requires NEPA at Plan level to match level of analysis
 - Adds standard regarding species viability
 - Emphasizes monitoring in adaptive management cycle

Option 2 - what's right

- · Top-down, 'coarse filter' approach
 - Seeks to protect diversity wholesale, not retail
 - Considers contexts: landscape & history
 - Identifies rare ecosystems & those at risk
 - Emphasis on restoration of diversity & conditions
 - Evaluates effects of human & natural disturbances
 - Stated emphasis on baselines, monitoring, and adaptive management
- All needed, all great ideas

Concerns - NEPA

- NFMA, 1982, & 2000 Regs require EIS's for Plans, yet 2002 Reg 'categorically excludes' Plans from NEPA, instead requires EIS's for local Projects
- · Disadvantages:
 - Plan is proper and most efficient time & spatial scale for analysis; clear & open process for science input
 - Proliferates EA's less efficient than combined anal.
 - · Difficult to assess cumulative and regional impacts.
 - Fails to capitalize on broad-scale analyses in Option 2
 - · Discourages input from the public and scientists
 - · Scientists less inclined to work on small, local projects

Concerns - Discretion

- · FS responsibilities diminish
- Program Officer is granted full authority:

'Should' 'Must'
2000 Rule: 5 33
2002 Rule: 55 10

- Higher discretionary authority 'streamlines', but open to abuse
- Fewer clear <u>standards</u> and opportunities for <u>science input</u>

Concern: Priorities

- 2000 Regs: First priority: Ecological sustainability
 - Clear prerequisite for social & econ sustainability
 - · Includes: biological diversity
 - Productivity & function of ecosystems;
 - · Soil, air, & water quality
- 2002 Regs: social, economic, & ecological
 - Ignores what Comm of Scientists stressed:
 - · A primary need to first protect forests & watersheds

Concerns - Standards

- Option #2 Standard:
 - substantial reduction in abundance, extent, or distribution . . as a result of actions under the direct control of FS land managers?
- · Would require for any action:
 - Overwhelming evidence of decline
 - Proof that such declines were due to FS management
- Assumes: mgmt has no effects (until proved otherwise)
- Ignores responsibility to assess or address declines not directly attributable to management
 - Narrows concept of mgmt to ignore responsibility for biotic community (contra NFMA)

Appendix D4 – Scientist Alternative – Don Waller

Proper role of science / scientists?

- Should scientists work closely with managers to integrate scientific results into management?
- YES! according to:
 - Scientists

(2003 BioScience 'Forum')

- Managers
- Interest Groups
- Attentive Publicwho all agree

So consensus on role of science & scientists

Concern: Role of science/scientists

- 1982 & 2000 Regs convened Comm's of Scientists for input, not 2002 Regs.
- 2000 Regs required outside scientific input, incl National & Regional Science Advisory Boards
 - Such boards are routine in other agencies (EPA)
- 2002 Regs makes science discretionary:
 - No necessary NEPA at Plan level (219.6)
 - How & when to involve outside scientists (219.14)
 - How & when to monitor (219.11)

Concerns: Roads & Land use

- Roads
 - Many impacts on diversity & sustainability
 - 2000 Regs: consider roadless areas for addtl protection
 - 2002 Regs: only consider such areas for wilderness
- 2002 Regs 219.4(a)(4):
 - "NF lands generally available for a variety of uses"
 - Although zoning is allowed, return to old notion of presumed simultaneous multiple use
 - Ignores that uses compete & interfere with each other

Concerns - Diversity targets

- Option 1 focus on species viability
 - Narrow: 'native & desired non-native vertebrates and vascular plants' - but discretionary
- Option 2 focus on communities . .
 - Broad: 'native and desired non-native species'
 - Procedural does not specify outcomes or stds
 - Flexible, but needs standards and 'ground truth'
 - Can't maintain communities/ecosystems without maintaining species, yet no viability requirement
- · Need to strengthen Opt 2 with standards and data

Concerns - Monitoring

- · Importance of monitoring
 - Need 'dashboard' data to indicate effects of mgmt
 - Field data needed to guide adaptive management
 - Field data needed to assess population / community / ecosystem viability / sustainability
- · Key role of monitoring species recognized in:
 - 1982 Regs: Mgmt Indicator Species
 - 2000 Regs: Focal Species, including:
 - Interacting, keystone, sensitive species

Scientists' Option #3

- Retain Ecological Sustainability as #1 priority Informed ecological management is key
- Apply the best science
 - Use general principles / approaches (e.g., Option 2)
 - Stress monitoring
 - field data are needed for adaptive mangement
 - Work with scientists they are allies
 - Solicit input during planning and EIS work
 - Require formal peer review of Plan and Monitoring Results

Appendix D4 – Scientist Alternative – Don Waller

Scientists' Option #3

- · Inspired by Option 2, but extended
 - Retain Option 2 approach and analyses
- Emphasize monitoring (adaptive mgmt cycle)
 - Include scientists in design & evaluation of data
- · Require NEPA at Plan level
 - best level of analysis and best opportunity for input
- Add standard for species viability (cf. Option 1)
 - Necessary component for ecological sustainability
 - Needed to assure Option 2 goals (community diversity)
 - Ties in naturally with monitoring & adaptive mgmt

Scientists' Option #3

- Move to firm standards:
 - 'Analyses *must* evaluate the status of the char's of ecosystem diversity . . '
 - 'Evaluations must identify unique areas . . '
 - Char's of species diversity 'must include selected indicator taxa, interactive and rare species'
 - Eval of species diversity 'on focal species selected to provide insights to the integrity of the larger ecosystem'
 - Eval of risk Do individual species assessments, including viabiilty analyses of selected focal & T&E species for which appropriate data exist

Conclusion

- Option 2 provides key & needed analyses, but currently has many deficiencies
 - NEPA, opportunities for science input, etc.
- · These can be remedied via proposed extensions
 - Option 3 proposals
- · Species viability analysis is:
 - Necessary adjunct to coarse-filter approaches
 - advancing quickly often provides a useful tool
- · Commitment to sustainability requires monitoring
- · Scientists often agree and are ready to help